

L 28057-66

ACC NR: AT6002985

AND-element with k inputs. Differential equations for the probability of various states of the logical element are set up on the basis of a "diagram of states" which shows the consequences of failures of individual components. Solved by a conventional method (e.g., Laplace's transforms), the differential equations yield a formula for the probability that the element in question would be able to operate with a known reduced number of inputs (less than k). A numerical example with a 3-input AND-element illustrates the method. Procedural steps in the reliability calculations are outlined. Orig. art. has: 4 figures, 19 formulas, and 3 tables.

SUB CODE: 13, 09 / SUBM DATE: 23Apr65 / ORIG REF: 003

Card 2/2 C/C

L 10174-63 BDS
ACCESSION NR: AP3001623

S/0030/63/000/005/0104/0104

47

AUTHOR: Grabovetskiy, V. P. (Candidate of technical sciences); Raykin, A. L.

TITLE: Seminar on reliability problems [Reliability Section of the Scientific Council on Cybernetics of the Presidium of the Academy of Sciences SSSR]

SOURCE: AN SSSR. Vestnik, no. 5, 1963, 104

TOPIC TAGS: reliability of systems

ABSTRACT: A seminar on reliability problems has been organized by the Sektsiya nadezhnosti Nauchnogo soveta po kibernetike (Reliability Section of the Scientific Council on Cybernetics) and is now headed by Academician N. G. Bruyevich. Representatives of various scientific research institutes, universities, and industrial establishments in Moscow, Leningrad, Kiev, and other large cities participate. General problems of reliability theory as well as the reliability of elements of engineering systems are studied. Two meetings which took place on 28 January and 25 February 1963 are described. At the first, dealing with problems of structural reliability, three reports

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L 10174-63
ACCESSION NR: AP3001623

were presented. A. M. Kamyshnyy investigated the possibility of using the properties of nonlinear volt-ampere characteristics of certain instruments for securing the self-switching-in effect in redundant schemes. The report of A. L. Raykin dealt with estimates of structural communication losses in systems of sequential gathering of information. The report by O. I. Bronshteyn was an evaluation of the probability of the reception of a remote-control message in cases when the equipment of the dispatch point fails and can be restored. The second meeting dealt with reliability problems of elements of electromagnetic devices and with the problem of increasing the reliability of electronic digital computers. From a study of a physical model of electric contacts, Corresponding member AN SSSR B. S. Sot'skov and Candidate of technical sciences I. Ye. Dekabrun determined the probability of the correct operation of such devices. The reliability of a coil of an electromagnetic mechanism was studied in the report of B. S. Sot'skov and Ye. S. Krivorotova; formulas for calculating the reliability of coils were derived. Yu. A. Torgov investigated the reliability of two synchronously operating electronic digital computers with an auxiliary device permitting comparison of the calculation results of computers after each step of program compilation.

ASSOCIATION: none

SUMMITTED: 00

DATE ACQ: 21Jun63

ENCL: 00

SUB CODE: 00

NO REF Sov: 000

OTHER: 000

Card 2/2 GJ/AM

S/103/63/024/003/014/015
D405/D301

AUTHORS: Raykin, A.L. and Rybashov, M.V.

TITLE: Ninth scientific-technical conference of young scientists of the Institute of Automation and Remote Control (IAT)

PERIODICAL: Avtomatika i telemekhanika, v. 24, no. 3, 1963,
425-428

TEXT: The regular annual conference of young scientists of the IAT was held from 16-18 April, 1962. The conference surveyed the work done (or completed) in 1961. The participants were scientific workers from research institutes, design and planning bodies, schools of higher learning, and industrial plants from Moscow and Moscow region. The conference was opened by the director of the IAT Academician V.A. Trapeznikov. At the plenary session Doctor of Technical Sciences A.A. Fel'dbaum reported on 'Automatic optimization and self-learning systems'. In all, 44 reports and papers were presented at the following sections: 1) Automatic regulation. 2) Auto-

Card 1/2

Ninth scientific-technical ...

S/103/63/024/003/014/015
D405/D301

matic control. 3) Elements and apparatus of automation and remote control. 4) Computing devices. 5) Theory of relay systems and finite automata. 6) Remote control. The reports dealt (among others) with the following subjects: High-speed sampled data systems with switching during a sampling period. Parametric programming (related to control of cement manufacture). Optimal control using passive networks. Optimal control in iron-ore caking. Correlation analysis of catalytic cracking. Extremal control under non-Gaussian random signals with storing of information about plant. Periodic regimes in sampled-data extremal systems. Linearization devices. Semiconductor triggers. Digital indicator units. Control of mass discharges of flows. New methods of measuring electrolyte concentration. Electro-pneumatic converters with millivolt input. Switching-diode circuits. The use of conducting polymers in preparing control elements and devices. Pulse filter circuits for simulation. Various digital devices. Minimization of Boolean functions. Machine algorithm of synthesis of transition tables. Noise stability of a decoder for a two-frequency code. Estimate of optimal number of functional elements of a code-frequency remote control system.

Card 2/2

RAYKIN, A.L. (Moskva)

Reliability of reservation networks with continuous cutting-in of redundant elements with consideration of the redistribution of loads or stresses. Avtom. i telem. 24 no.4:558-562 Ap '63. (MKA 16:4)
(Electronics---Quality control)

ZHOZHIKASHVILI, V.A. (Moskva); RAYKIN, A.L. (Moskva)

Evaluation of system reliability with damage signaling. Avtom. i
telem. 23 no.3:392-397 Mr '62. (MIRA 15:3)
(Automatic control)

S/103/62/023/011/006/007
D201/D308

AUTHOR: Raykin, A.L. (Moscow)

TITLE: Determining the optimum reserve capacity of a system taking into account the breakdown of reserve equipment sections in the stand-by operation

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 11, 1962,
1536 - 1541

TEXT: Using the methods of mathematical programming the author determines an optimum, from the point of view of reliability, number of different types of reserve equipment sections, with limitations as to the total weight, volume and cost of reserve equipment. The system considered is the one with a non-absolute reliability of the reserve equipment and it is assumed that the rate of failures of both the normal and stand-by equipment, when operating, is known and constant.

SUBMITTED: April 13, 1962

Card 1/1

L 14039-65 EWT(1)/EEC(b)-2/EWA(h) Pm-4/Po-4/Pq-4/Pg-4/Peb/Pl-4 AFWL/ASD(d)/
ACCESSION NR: AP4044818 ASD(a)-5/ESD(dp) S/0280/64/000/004/0013/0018

AUTHOR: Raykin, A. L. (Moscow); Rubtsov, A. F. (Moscow); Penin,
V. S. (Moscow)

TITLE: Reliability of an engineering system with regularly re-
storable reserve

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4,
1964, 13-18

TOPIC TAGS: engineering system reliability, redundant system,
regularly restorable reserve, hot reserve, cold reserve, double
system

ABSTRACT: The reliability of a redundant system with a regularly
restorable reserve at the end of an arbitrary interval of time $(0, t)$
is sought as a function of the number $(m - 1)$ of units in the hot re-
serve, of the number n of units in the cold reserve, and of the length
of the interval of time τ under the assumption that for every in-
dividual unit in the hot reserve the distribution of nonfailure
operation time is equal to $R_1 = e^{-\lambda t}$ and for every unit in the cold

Card 1/2

L 14039-65

ACCESSION NR: AP4044818

reserve the distribution is equal to $R_2 = e^{-\alpha \lambda t}$ ($0 < \alpha \leq 1$), where λ is a constant. A method is presented for deriving the reliability formula at the end of an arbitrary interval of time for a finite n . The case when $n \rightarrow \infty$ is also analyzed. A more detailed analysis is carried out for a two-unit redundant system ($m = 2$). The reliability formula and the mathematical expectation of the number of failures in time t for $m = 2$ are derived. Reliability values are calculated on electronic digital computers for the following sets of parameters: $m = 3, 4, 5, ; n = 1, 2, 3, 4, 5; \lambda t = .01, .03, .05, .1, .2, .3, .4, .5$. Reliability curves are plotted on the basis of the calculated results. Orig. art. has: 30 formulas.

ASSOCIATION: none

SUBMITTED: 03Jan64

ENCL: 00

SUB CODE: MA

NO REF SOV: 001

OTHER: 001

Card 2/2

TRUTNEV, V.; RAYKIN, B.

Factory helps a collective farm. Mashinostroitel' no.8:4 Ag
'62. (MIRA 15:8)
(Luga District--Farm mechanization)

MAVRODIADI, V., inzh.; RAYKIN, L., inzh.

Amateur radio constructors create new equipment. Tekh.mol. 28
no.9:24-25 '60. (MIRA 13:10)
(Electronic apparatus and appliances)

RAYKIN, L., inzh.

Antenna for the "Pobeda" automobile. Za rul. 18 no.5:21 My '60.
(MIRA 14:3)

(Radio---Antennas)

GRANICH, Den'iski Aleksandrovich; ZVINKIN, L.A., red.

[Radioelectronics in agriculture] Radioelektronika v sel'skom khozyaistve. Minsk, Izd-v. "Energija," 1972, 31 p. (Vsesovjuznaia radiobiblioteka, no.592) (Nika 17,7)

MAVRODIADI, V.G.; RAYKIN, L.A.; TROITSKIY, L.V.; DOL'NIK, A.G.,
red.; GODINER, F.Ye., red.

[Contribution of radio amateurs to the national economy]
Radioliubiteli narodnomy khoziaistvu. Moskva, Izd-vo
DOSAAF, 1963. 142 p. (MIRA 17:4)

RAYKIN, L.B.

Administration and general services combine for the Kuznetsk Basin. Adm.-byt. komb. ugol', shakht no. 5:29-36 '62.

(MIRA 17:8)

1. Vsesoyuznyy tsentral'nyy gosudarstvennyy institut po proyektirovaniyu i tekhniko-ekonomicheskim obosnovaniyam razvitiya ugol'noy promyshlennosti.

RAYKIN, L.S.; MAZURSKIY, L.A.

Installation work on a section being electrified. Transp. stroi.
8 no.11:12-13 N '58. (MIRA 12:1)

1.Nachal'nik tekhnicheskogo otdela tresta Transelektromontazh
(for Raykin). 2.Nachal'nik proizvodstvennogo otdela (for Mazurskiy).
(Railroads--Electrification)

BOBREISHCV, Ye.M.; RAYKIN, P.S.

Preferred selection unit. Avtom. i prib. no.2849-50 Ap-Je '65.
(MIRA 18:7)

RAYKIN, P.S.

Transistor control of digital presentation tubes. Avtom. i
prib. no.4:42-43 O-D '63. (MIRA 16:12)

1. Kiyevskoye otdeleniye TSentral'nogo nauchno-issledovatel'skogo instituta svyazi.

L 57874-65 EWT(j)/FSs-2/EEC-4/EEC(t) Pn-4/Pp-4/Pac-4
ACCESSION NR: AP5016723

UR/0286/65/000/010/0041/0041
621.315.052.7

AUTHOR: Berkman, N. A.; Gontar', V. M.; Gurov, V. S.; Darova, P. I.; Yetrukhin,
N. N.; Zolotarev, Ya. M.; Grazhevskiy, S. P.; Kopp, V. M.; Pasechnik, N. D.;
Vonomarenko, V. A.; Pugach, A. B.; Raykin, P. S.; Sergeyev, I. V.

TITLE: System for measuring the duration and number of interruptions in a communication channel. Class 2J, No. 171023

SOURCE: Byulleten' izobryeteniy i tovarnykh znakov, no. 10, 1965, 41

TOPIC TAGS: noise measurement, frequency meter, communication channel, pulse meter

ABSTRACT: The proposed measuring device converts the spectrum of the investigated pilot (measuring) frequency to a region of higher frequencies and uses a filter to separate the side band containing information on the signal envelope. Provision is made for simultaneous analysis of pulse noise and decline in the level of the pilot frequency with respect to voltage and duration. Information on interruption time is transmitted in the form of quantized pulse packets to a measuring circuit consisting of flip-flops, AND gates, and registers. Orig. art. has: 1 figure. [DW]

Card 1/2

L 57974-65
ACCESSION NR: P5016723

ASSOCIATION: Kiyevskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo
instituta svyazi Ministerstva svyazi SSSR (Kiev Department of the Central Scientific
Research Institute of Communications of the Ministry of Communications, SSSR)

SUBMITTED: 10Nov63

ENCL: 00

SUB CODE: EC

NO REF Sov: 000

OTHER: 000

ATD PRESS: 4038

Card 2/2

ACC NR: AP6033682

SOURCE CODE: UR/0106/66/000/010/0031/0037

AUTHOR: Kopp, V. M.; Ponomarenko, V. A.; Yevtushenko, V. V.; Raykin, P. S.

ORG: none

TITLE: Pulse noise analyzer for multiple high frequency telephone channel systems used for data transmission

SOURCE: Elektrosvyaz', no. 10, 1966, 31-37

TOPIC TAGS: multichannel telephone system, carrier frequency telephone, data transmission, transmission line, noise analyzer, random noise signal, ergodic theory, statistic analysis, statistic distribution

ABSTRACT: Technical characteristics, design principles, and the operation of a pulse noise analyzer for use with digital data in multichannel transmission links are described. The analyzer generates an integral distribution function of the instantaneous amplitude values of pulse noise and, simultaneously, the probability distribution of noise pulse durations at a predetermined amplitude level. The integral distribution function of noise pulses is determined by measuring the dwell time of the instantaneous values of their amplitudes at the seven following voltage levels: 18, 24, 36, 54, 72, 108, and 144 millivolts. The lower value was selected to eliminate the effect of the demodulator offset while the upper value was based on preliminary experiments.

Card 1/3

UDC: 621.317.795.3

ACC NR: AP6033682

The integral distribution function, assuming that the random process is stationary and ergodic, is determined through instrumentation as a result of the measurement of the relative dwell time of one of its states above a predetermined level. To this end, the random signals are fed into an amplitude threshold discriminator. Every excursion of the input signal above the preset trigger level of a particular threshold discriminator causes an output pulse to be generated, the duration of which equals the dwell time of the random pulse at this level. The additive dwell time of such pulses during the experiment equals the total process time. It is expedient to measure this parameter digitally. Hence, the dwell pulses are converted into pulse trains by using the former as gates for clock pulses. The number of clock pulses in each train corresponds to the dwell time of the original noise pulse. The clock pulses are counted and the relative process time is obtained as a ratio of the total noise time to the total duration of the experiment. In addition to this result, the probability density of the dwell time at a given voltage level is generated by counting the pulses in the individual trains and recording the original pulses in appropriate time increment channels in accordance with their dwell times. The analyzer based on these principles is described in some detail, including a block diagram, and an example is used to illustrate the operation of the instrument. The authors conclude that for the statistical analysis of noise in a multichannel communication link it is sufficient to determine the total dwell time of the noise pulses above a given level. The analysis of the instantaneous amplitudes and durations of the noise pulses provides the

Card 2/3

ACC NR: AP6033682

possibility to compute the two-dimensional probability distribution of this noise.
Orig. art. has: 3 figures.

SUB CODE: 09,17/ SUBM DATE: 09Nov65/ ORIG REF: 004

Card 3/3

L 10786-66 EWT(d)/EWP(1) IJP(c) BB/GG/JXT(CZ)
ACC NR: AP6001515 SOURCE CODE: UR/0302/65/000/004/0031/0034

AUTHOR: Bobreshov, Ye. N.; Zolotarev, Ya. M.; Ponomarenko, V. A.; Raykin, P. S.

ORG: none 44 44 44 44

TITLE: Counter for conversion of numbers from the binary to the decimal system

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1965, 31-32

TOPIC TAGS: pulse counter, binary code

ABSTRACT: A binary-to-decimal converter, particularly useful for the conversion of large numbers, was developed at the Kiev branch of the Central Scientific Research Institute of Communication. A block diagram is shown in Figure 1. Input circuit 1 after the entry of the binary number to be converted causes pulse generator 4 (1 Mc) to send pulses to binary counter 7 and decimal counter 6 through inhibit circuit 3. When the count in 7 is equal to the number at the input, block 2 causes inhibit circuit with memory 3 to close the gate connecting generator 4 with the two counters. After the decimal equivalent stored in 6 has been read out, both counters are reset to 0, and the inhibit signal in 3 is lifted. The capacity of the converter is limited by the capacity of the binary counter, which is $2^{21} - 1$. The counters use nonsaturating

Card 1/2

UDC: 681.142.621

52

B

L 10786-66

ACC NR: AP6001515

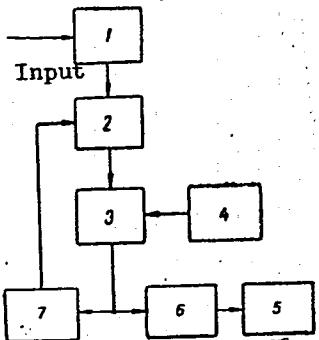


Fig. 1. Binary-to-decimal converter

complementary flip-flops with P416 transistors. Display unit 5 consists of a decade gas-discharge tube with associated transistor drive circuits. The temperature limits for the converter are -10 to +50C. Orig. art. has: 2 figures. [BD]

SUB CODE: 09/ SUBM DATE: none/ ATD PRESS: 4168

HW
Card 2/2

L 4902-66 EWT(d)/FSS-2/FCS(f)

ACC NR: AP5023279

UR/0302/65/000/003/0054/0055
620.1.087.4

AUTHOR: Berkman, N. A.; Bobreshov, Ye. N.; Ponomarenko, V. A.; Raykin, P. S.

TITLE: Multichannel recorder

SOURCE: Avtomatika i priborostroyeniye, no. 3, 1965, 54-55

TOPIC TAGS: data recording, data processing, multichannel analyzer, multitrack recording, statistic analysis, data transmission, electronic device, communication equipment

ABSTRACT: Numerous processes are investigated by statistical analyzers which incorporate devices for the registration of results. The majority of such devices are either extremely cumbersome and expensive or utilize single channels preventing the simultaneous registration of data. The present article describes a comparatively simple recorder which simultaneously registers, with a reasonable degree of accuracy, the results of the analysis of random quantities in twenty channels. This device, developed at the Kiyevskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo instituta svyazi (Kiev Department, Central Scientific-Research Institute of Communications) is based on the scaling of electrical impulses arriving from statistical analyzers. The block diagram of the recorder and the basic triggering scaler circuit are presented and their operation is described. The device is presently in use at the Kiev and Moscow communication centers in conjunction with the study of statistical characteristics of interferences and interruptions during transmission of data. Orig. art. has: 2 figures.

Card 1/2

L 4902-66

ACC NR: AP5023279

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00 SUB CODE: DP, IE, EC

NO REF SOV: 002

OTHER: 000

PC
Card 2/2

ALEKSEYEV, V.I.; RAYKIN, V.A.

Adjustment of the "Amur" machine. Khol.tekh. 40 no.5:57-59
S-0 '63. (MIRA 16:11)

RAYKIN, Ya.M., inzh.

"Nuclear power reactors" by [kand.tekhn.nauk] V.S.Aleshin, [kand.tekhn.
nauk] A.A.Sarkisov. Reviewed by IA.M. Raikin. Sudostroenie 28 no.11:
79 N 62. . .
(Nuciear reactors) (Aleshin, V.S.) (Sarkisov, A.A.)
(MIRA 15:10)

RAYKIN, Ya.M.

Calculating the critical velocity of a steam-water mixture,
beyond which heat transfer is impeded. Inzh.-fiz. zhur. 8 no.3:
393-395 Mr '65. (MIRA 18:5)

RAYKINA, I.Ya.

USSR.

CH

(2)

Reaction of some chlorides of elements of group IV with acetoacetic ester. Yu. N. Vol'nov, P. M. Glezer, and I. V. Raykina. *Sovetsk. Stolet. Obrabot. Akhiv*, 2, 976-8 (1953). To 10 g. $\text{AcCH}_3\text{CO}_2\text{Et}$ chilled with Dry Ice was added 5 g. SiCl_4 to yield yellow crystals of the adduct ($\text{AcCH}_3\text{CO}_2\text{Et})_2\text{SiCl}_4$, purified by air blowing while chilled with Dry Ice; the product hydrolyzed in H_2O , and vigorously evolves HCl in the dry state above 5°. Dry-air blowing finally at 100°, left behind a yellow product, $(\text{AcCH}_3\text{CO}_2\text{Et})_2\text{SiCl}_3$, decom., about 250° (from petr. ether). Similarly was obtained $\text{AcCH}_3\text{CO}_2\text{Et}(\text{SnCl}_4)_2$, m. 132-3°, which on air blowing at 125° gave some sublimate of the starting material and a residue of $(\text{AcCH}_3\text{CO}_2\text{Et})_2\text{SnCl}_3$, insol. in organic solvents. Similarly was prep'd. with ice cooling $\text{AcCH}_3\text{CO}_2\text{Et}(\text{TiCl}_4)_2$, m. 115-17°, sol. in halogenated solvents; the product can be prep'd. in ligroine soln. $\text{AcCH}_3\text{CO}_2\text{Et}$ (5 g.) added in Et_2O to 6.3 g. TiCl_4 in Et_2O formed yellow $(\text{AcCH}_3\text{CO}_2\text{Et})_2\text{Ti}(\text{TiCl}_4)_2$, m. 122-3° [cf. Dilthey, *Ann.* 314, 300 (1906)]. The former product, m. 115-17°, was air-blown 6 hrs. at 120°, yielding brown $(\text{AcCH}_3\text{CO}_2\text{Et})_2\text{TiCl}_3$. Mixing 3.5 g. PbCl_4 with 1.3 g. $\text{AcCH}_3\text{CO}_2\text{Et}$ at -78° gave yellow $\text{AcCH}_3\text{CO}_2\text{EtPbCl}_4$, which decom. at 0°, yielding a liquid ($\text{AcCH}_3\text{CO}_2\text{Et}$) and a white solid (PbCl_2). G. M. Kosolapoff

RAYKINA, V. (Podol'sk)

Medical care for the workers of an industrial enterprise. Sov.
zdrav. 22 no. 2818-24 '63. (MIRA 16:2)
(LABOR AND LABORING CLASSES--MEDICAL CARE)

GOLODOV, L.M.; BELIKOVA, V.P.; SUSHKINA, A.G.; RAYKINA, V.S.; PRIGACHEVA, Z.F.

Characteristics of a typhoid fever outbreak at an industrial enterprise. Trudy TSIN 63:35-37 '64.
(MIRA 18:5)

SPIVAK, M.Ya.; ARGUDAYEVA, N.A.; NABIYEV, E.G.; CHISTOVICH, G.N.; RIVLIN, M.I.; SEMENOV, M.Ya.; KRUGLIKOV, V.M.; SHAL'NEVA, A.M.; TITROVA, A.I.; RAYKIS, B.N.; MILYAYEVA, Ye.N.; BRUDNAYA, E.I.; GODINA, I.F.; VOL'FSOHN, G.I.; SOSONKO, S.M.; KOLESINSKAYA, L.A.; VYSOTSKIY, B.V.; MALYKH, F.S.; MIROTVORTSEV, Yu.I.; SYCHEVSKIY, P.T.; GOPACHENKO, I.M.; KARPITSKAYA, V.M.; FETISOVA, I.A.; MARTYNYUK, Yu.V.; EMDINA, I.A.

Annotations. Zhur. mikrobiol., epid. i immun. 40 no.3:128-131
Mr '63. (MIRA 17:2)

1. Iz Kemerovskogo meditsinskogo instituta i Kemerovskoy klinicheskoy bol'nitsy No.3 (for Spivak, Argudayeva). 2. Iz Kazanskogo instituta usovershenstvovaniya vrachey imeni Lenina (for Nabiyev). 3. Iz Leningradskogo kozhnogo dispansera No. 1 (for Chistovich, Rivlin). 4. Iz Rostovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (for Semenov). 5. Iz Stavropol'skogo instituta vaktsin i syvorotok (for Kruglikov, Shal'neva, Titrova, Raykis). 6. Iz Kuybyshevskogo instituta epidemiologii, mikrobiologii i gigiyeny i TSentral'nogo instituta usovershenstvovaniya vrachey (for Milyayeva). 7. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta zhelezno-dorozhnaya gigiyeny Glavnogo sanitarnogo upravleniya Ministerstva putey soobshcheniya i Detskoj polikliniki st. Lyublino

(Continued on next card)

RAYKIS, B. N., Cand. Medic. Sci. (diss) "Some Regenerative Processes in Red Bone Marrow and Endosteum of Rabbit After Single Total and also Local Irradiation and its Long-range Effects," Rostov-on-Don, 1961, 19 pp. (Rostov Med. Inst.) 400 copies (KL Supp 12-61, 288).

RAYKIS, B. N.
USSR/Biology - Cytology

FD-2394

Card 1/1 Pub. 42-7/9

Author : Raykis, B. N.

Title : Concerning one method of transforming a nucleolus into a nucleus

Periodical : Izv. AN SSSR. Ser. Biol. 2, 96-102, March-April, 1955

Abstract : The author investigated tissue slides of the liver of the Rana esculenta tadpole to demonstrate the transformation of a nucleolus into a nucleus. It is stated that this phenomenon can be 1) intra-nuclear, 2) extra-nuclear or 3) not within the nucleus but also not completely outside of it. Drawings; photographs. Twenty one references, twelve from the USSR (eight after 1940).

Institution: Stavropol State Medical Inst

Submitted : November 29, 1954

KRUGLIKOV, V.M.; RAYKIS, B.N. (Stavropol')

Changes in the number of binuclear cells in the liver in
leptospirosis. Arkh. pat. 24 no.9:39-43 '62.

(MIRA 17:4)

1. Stavropol'skogo nauchno-issledovatel'skogo instituta i
syvorotok (dir. - kand. med. nauk. V.M. Kruglikov).

ILLYUTOVICH, A.Yu.; PETROVA, Z.S.; KHOTEEYEVA, R.S.; MAKHLINOVSKIY, L.I.;
GOLUBEVA, Ye.Ye.; RAYKIS, B.N.

Experimental biological model of colienteritis and some
problems in the pathogenesis of this infection. Zhur.
mikrobiol., epid. i immun. 33 no.1:83-89 Ja '62. (MIRA 15:3)

1. Iz Stavropol'skogo instituta vaktsin i syvorotok.
(ESCHERICHIA COLI)
(INTESTINES—DISEASES)

ILLYUTOVICH, A.Yu.; BUDYLINA, V.V.; RAYKIS, B.N.

Study of immunological shifts in the administration of
purified adsorbed tetanus anatoxin. Zhur. mikrobiol. epid.
i immun. 40 no.5:97-102 My '63. (MIRA 17:6)

1. Iz Stavropol'skogo instituta vaktsin i syvorotok.

ILLYUTOVICH, A.Yu.; RAYKIS, B.N.; LABETSKIY, I.I.

Characteristics of immunogenesis in guinea pigs vaccinated
with sorbed tetanus anatoxin under conditions of ionizing
radiation lesion. Zh. mikrobiol. 40 no.7:61-64 Jl'63
(MIRA 17:1)

1. Iz Stavropol'skogo instituta vaktsin i syvorotok.

PRIBREVSKIY, A.V.; KATKOV, N.M.; LAKUTSKII, I.I.

Characteristics of immunity in guinea pigs irradiated following
vaccination with sorbic tetanus anatoxin. Zaur. mikrobiol., epid.
i imun. 41 no.11:21-23 '65. (MIKA 18:5)

U. Sveriges folksjukhus, institutet vaktain i syvaretek.

RAYKO, A. O.

Mechanical engineers to chemists. Mashinostroitel' no. 11:8
N 164 (MIRA 18:2)

AGRE, A.L.; RAYKO, A.P.

Accumulation of microquantities of strontium by green and
blue-green algae. Fiziol. rast. 11 no.1:135-137 Ja-F '64.
(MIRA 17:2)
1. Akademiya kommunal'nogo khozyaystva imeni K.D. Pamfilova,
Moskva.

AGRE, A.L.; RAYKO, A.P.; TIMOFIYEV-RESOVSKIY, N.V.

Effect of the various biomass of aquatic plants on the concentration of microquantities of cesium and strontium in tanks with slow circulation. Biul.MOIP.Otd.biol. 67 no.5:120-127 S-O '62.
(MIRA 15:10)

(FRESHWATER FLORA) (WATER--PURIFICATION)
(RADIOISOTOPES)

AGRE, A.L.; RAYKO, A.P.

Biological concentration of minute quantities of cesium and strontium
in reservoirs with slow circulation. Report No.2. Biul.MOIP.Otd.
biol. 67 no.3:155-156 My-Je '62. (MIRA 15:11)
(Plants, Effect of radioactivity on) (Water--Purification)

RAYKO-PERTSEVA, M.N.

Biochemical characteristics of the contents of the digestive tract
in some species of birds. Trudy Astr. zap. no.5:278-285 '61.
(MIRA 16:8)
(Digestion) (Birds--Food)

SAKHnenko, Vladimir L'vovich; MAKsIMOVICH, Vadim Aleksandrovich; TROITSKIY,
Anatoliy Vasil'yevich; TROCHUN, Ivan Petrovich; POTISHKO, Aleksey
Vasil'yevich; AVRamenko, Luka Avksent'yevich; VAREYKIS, Arnol'd
Mikhaylovich; VITKUP, Ye.B., redaktor; RAYKO, M.V., redaktor; SAMO-
KHVALOV, Ya.A., vedushchiy redaktor; VAL'CHUK, G.I., vedushchiy
redaktor; PATSALYUK, P.M., tekhnicheskij redaktor

[Atlas of machine parts; mechanical joints and couplings] Atlas
detalei mashin; soedineniya i mufty. Kiev, Gos. izd-vo tekhn. lit-
ry USSR, 1956. 146 p.
(Couplings) (Welding) (Fastenings)

RAYKO, M.V.; TRIVAYLO, M.S.

Method of measuring the thickness of the lubrication layer at
the contact of machine parts. Fiz.-khim. mekh. mat. 1 no.5:
588-591 '65. (MIRA 19:1)

1. Kiyevskiy institut inzhenerov grazhdanskoy aviatsii. Submitted
Sept. 4, 1964.

DOBROVOL'SKIY, Viktor Afanas'yevich. Prinimali uchastiye: RAYKO, M.V.;
DOBROVOL'SKAYA, G.V.; KHEYFETS, L.S., red.; VASILENKO, M.A.,
red. izd-va; GORKAVENKO, L.I., tekhn. red.

[Calculation of machine parts; examples with detailed solutions]
Raschet detalei mashin; primery s podrobnymi resheniami. Izd.7.
Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 389 p. (MIRA 14:11)
(Machinery—Design and construction)

D'YACHENKO, Stepan Kuz'mich, kand. tekhn. nauk; S'OLBOVOY,
Sergey Zakharovich, kand. tekhn. nauk; RAYKO, M.V.,
kand. tekhn. nauk, retsenzent; YESIPENKO, Ya.I., kand.
tekhn. nauk, red.

[Design of machine parts] Raschet i proektirovanie deta-
lei mashin. Kiev, Tekhnika, 1964. 314 p. (MIRA 17:12)

SAUTIN, Vasiliy Iosifovich, kand. sel'khoz. nauk; RAYKO, Polina Nikiforovna, nauchn. sotr.; BARKAI, V.A., red.; MISHANOVA, Ye.A., red.; ZUYKOVA, V.I., tekhn.red.

[Guide to the forest types of White Russia] Opredelitel'
tipov lesa BSSR. Minsk, Gos.izd-vo sel'khoz.lit-ry BSSR,
1963. 201 p. (MIRA 16:12)
(White Russia--Forest ecology)

RAYKO, P.M.

Natural reproduction of larch in the forests of White
Russia. Bot.; issl.Bel.otd.VBO no.7:124-128 '65.

(MIRA 13:12)

SAUTIN, V.I.; RAYKO, P.I.

Siberian larch and its cultivation in the forests of White Russia,
Sbor. nauch. rab. Bel. otd. VBO no.3:122-126 '61. (MIRA 14:12)
(White Russia—Larch)

RAYKO, V., arkhitektor.

New methods in the construction of swine yards in Czechoslovakia.
Sil'.bud. 13 no.10:21-22 O '63. (MIRA 17:3)

5(3)

SOV/63-4-3-15/31

AUTHORS: Rayko, V.B., Savel'yeva, Ye.V.

TITLE: The Production of Varnishes and Paints in Capitalist Countries

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 3,
pp 378-382 (USSR)

ABSTRACT: The article deals mostly with the USA and describes: the volume of production; the consumption of synthetic resins, pigments and vegetable oils; solvents; pigments and colored pigments. There are 10 tables and 45 references, 5 of which are Soviet, 19 English, 11 American, 5 German, 3 Indian, 1 Canadian and 1 French.

Card 1/1

L 06554-67 EWT(1) IJP(c) AT
ACC NR: AT6008413

SOURCE CODE: UR/3136/65/000/974/0001/0019

AUTHOR: Rayko, V. I.

ORG: State Committee for the Utilization of Atomic Energy, Institute of Atomic Energy imeni I. V. Kurchatov (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR, Institut atomnoy energii)

TITLE: Study of the extraction and formation of ion beams in plasma sources

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-94, 1965. Issledovaniye izvlecheniya i formirovaniya ionnykh puchkov v plazmennykh istochnikakh, 1-19

TOPIC TAGS: ion current, plasma generator, ion beam, ion source, isotope separation

ABSTRACT: Methods of increasing the yield of an ion source for an electromagnetic separator on the basis of selecting the optimum geometry for the ion-optical system are discussed. Ion beam dispersion in the plane of the trajectory at the output was studied as a function of the main characteristics of the source. Sources used at IAE for the separation of stable isotopes over a wide range of isotope masses were analyzed and the effect of uncompensated positive space charge in the beam was evaluated. A graph is given showing current density as a function of ion mass for various ion-optical geometries. The results of the research were used to design a separator for lead ions that have a PB current density of ~50 ma/cm², representing an improvement

Card 1/2

L 06554-67

ACC NR: AT6008413

over previous ion-optical systems of one order of magnitude. Orig. art. has: 12
figures, 5 formulas.

SUB CODE: 20,18/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 002

Card 2/2

L 1931-66 EWT(m)/EPF(c)/ETC/EPF(n)-2/EWG(m)/EWP(b)
ACCESSION NR: AT5022583

UR/3136/64/000/592/0001/0020

He
B+1

AUTHOR: Gavrilov, B. Ye.; Zharinov, A. V.; Rayko, V. I.

TITLE: Dynamic decompensation of the space charge of ion beams in electromagnetic
isotope separation /9

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-592, 1964. O dinamicheskoy
dekompensatsii prostranstvennogo zaryada ionnykh puchkov pri elektromagnitnom razdel-
enii izotopov, 1-20

TOPIC TAGS: ion beam, plasma density, plasma oscillation, space charge, gas discharge

ABSTRACT: An attempt is made at an elementary theoretical generalization of certain properties of intense ion beams, primarily for the purpose of finding possible methods of controlling dynamic decompensation. It is shown that the geometrical properties of beams extracted from plasma obey the laws of similarity. On the basis of these laws, general relationships are established which correlate the plasma density pulsations in the source, the angular divergence, the degree of dynamic decompensation, and the beam potential. The elementary theoretical analysis used shows that the regimes most favorable from the standpoint of dynamic decompensation of ion beams are those corresponding to divergent beams. Under these conditions, the degree of dynamic decompensation is minimal and is

Card 1/2

L 1931-66
ACCESSION NR: AP5022583

the same in order of magnitude as the relative pulsation of plasma density in the discharge. Therefore, since it is always possible to select regimes where the pulsations of angular divergence become unimportant, a further increase in the intensity of compensated ion beams will require the development of methods for substantially decreasing the level of current density pulsations in the discharge. Orig. art. has: 8 figures, 19 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: ME, EM

NO REF SOV: 003

OTHER: 001

Card *m/a* 2/2

S/057/63/033/002/018/023
B108/B186

AUTHOR: Rayko, V. I.

TITLE: On similarity laws for ion sources

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 33, no. 2, 1963, 244 - 245

TEXT: It is shown that the angular divergence θ of an ion beam extracted from a plasma by a two-electrode optical system is a function only of j/j_d , where j_d is the current density at which θ has its minimum. This ratio which is also equal to $d^2/\kappa_0 d_j^2$ can be termed the similarity parameter P . d is the distance between the electrodes, κ_0 is a factor accounting for

the geometry of the beam at $\theta = \theta_{\min}$. Thus, $P = \frac{9\pi d^2}{\kappa_0 U_0^{3/2}} \sum_{n,m} j_{n,m} / \sqrt{2eZ_n/M_m}$,

where U_0 is the potential difference in the accelerating gap, M the ion mass, eZ the ion charge. κ_0 can be found from the condition $P_{\min} = 1$. The dependence of θ on P observed in experiments (see also M. V. Nezlin. ZhTF,

Card 1/2

On similarity laws for ion sources

S/057/63/033/002/018/023
B108/B186

30, 168, 1960) can be explained by the change in curvature of the emitting plasma boundary. There are 2 figures.

SUBMITTED: July 31, 1962

Card 2/2

KOSHITS, Yu.I.; VELIKA, Z.R.[Velyka, Z.R.]; RAYKO, V.I.[Raiko, V.I.];
ONISHCHENKO, M.Yu.[Onyshchenko, M.IU.]; BUTSENKO, M.A.;
KRAVCHENKO, V.Ya., red.; SLIN'KO, B.I., red.; GRISHKO, T.I.
[Hryshko, T.I.], tekhn. red.

[Buildings on livestock farms] Budiv'li tvarynnys'kykh ferm;
budivel'na i proektna praktyka. Za red. V.IA.Kravchenka. Kyiv,
Derzhbudvydav URSR, 1962. 89 p. (MIRA 16:5)

1. Akademiya budivnytstva i arkhitektury URSR. Naukovo-
doslidnyi instytut arkhitektury sporud.
(Farm buildings--Design and construction)

RAYKO, V. I.

95

S/089/62/013/006/019/027
B102 B186

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo
instituta (Scientific Conference of the Moscow Engineering
Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fiveyskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mössbauer effect; M. I. Ryazanov, theory of ionization losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadze, h-f conductivity of subcritical plasma;

Card 1/4

36

8/089/62/013/006/019/027
B102/B186

Nauchnaya konferentsiya...

Ye. Ye. Lovetskiy, A. A. Rukhadze, electromagnetic waves in nonhomogeneous plasma; Yu. D. Kotov, I. L. Rozental', the origin of fast cosmic muons; Yu. M. Ivanov, muon depolarization in solids; V. G. Varlamov, Yu. M. Grashin, B. A. Dolgoshein, V. G. Kirillov-Ugryumov, V. S. Roganov, A. V. Samoylov, μ^- capture by various nuclei; V. S. Demidov, V. G. Kirillov-Ugryumov, A. K. Ponosov, V. P. Protasov, F. M. Sergeyev, scattering of π^- mesons at 5 - 15 Mev in a propane bubble chamber; S. Ya. Nikitin, M. S. Aynutdinov, Ya. M. Selektor, S. M. Zombkovskiy, A. F. Grashin, muon production in π^+p interactions; B. A. Dolgoshein, spark chambers; N. G. Volkov, V. K. Lyapidevskiy, I. M. Obodovskiy, study of operation of a convection chamber; K. G. Finogenov, production of square voltage pulses of high amplitudes; G. N. Alekseev, problems of color vision; V. K. Lyapidevskiy, relation between number of receivers and number of independent colors; Ye. M. Kudryavtsev, N. N. Sobolev, N. I. Tisengauzen, L. N. Tunitskiy, F. S. Fayzulov, determination of the moment of electron transition of oscillator forces and the widths of the Schumann-Runge bands of molecular oxygen; B. Ye. Gavrilov, A. V. Zharikov, V. I. Bayko, decomposition of the volume charge of intense ion beams; Ye. A. Kramer-Agryev, V. S. Troshin, measurement of neutron spectra; G. G. Doroshenko, new methods of fast-neutron recording; V. I. Ivanov, dosimetry terminology; R. M. Voronkov, Card 2/4.

20676

S/120/61/000/001/007/062
E032/E11⁴

26.2012

AUTHORS: Rayko, V.I., Ioffe, M.S., and Zolotarev, V.S.

TITLE: A Surface-Ionization Ion Source for the Separation of Isotopes of Alkali Elements

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.29-32

TEXT: The source was designed to produce high intensity beams and K and Rb ions in electromagnetic isotope separators. In comparison with the gas discharge sources, the present source has the advantage that oscillatory processes occurring in the discharge and affecting the ion beam are absent and the spectrum does not contain multiply-charged ions. The principle of the source is indicated in Fig.1, in which the working substance is loaded into the cylindrical furnace 1 in the form of a metal or salt. The furnace is heated by the two coaxial stainless steel cylinders 2 which are 0.15 mm thick and are heated by passing a current through them. The temperature is measured by the thermo-couple 3. The vapour passes through the mixer 4 which is also made of stainless steel, and finally reaches the ionizer 5 through a gap (0.2-0.5 mm) between the ionizer 5 and the front Card 1/4

20676

S/120/61/000/001/007/062

E052/E114

✓

A Surface-Ionization Ion Source for the Separation of Isotopes of
Alkali Elements

lid 6 of the ionization chamber. The ionizer is in the form of a nickel box ($18 \times 10 \times 200 \text{ mm}^3$) which contains a heater consisting of a few turns of molybdenum wire (1 mm in diameter). The power consumption of the latter is 400 W. The working surface of the ionizer facing the ion-optical system 7 is concave in order to focus the ion beam. The surface ionization coefficient calculated from the Saha-Langmuir equation for nickel is 99.9 at 1000°K , while at 1728°K it is 98.2 (the corresponding figures for tungsten are 87 and 68 respectively). Ions formed on the working surface of the ionizer are accelerated by the field between 6 and 7 and are focussed into an ion beam. The cross-section of the ion beam at the surface of the ionizer is $8 \times 180 \text{ mm}^2$. The cross-section is defined by the slit in the front lid 6 of the ionization chamber. This lid serves both as the first electrode of the accelerating system and as the limiting slit for the ion beam. The lid is air-cooled. Fig.3 shows the empirical relation between the ion current of K^+ ions (mA) and

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20676

S/120/61/000/001/007/062

A Surface-Ionization Ion E032/E114

the temperature of the ionizer. Curves 1-4 correspond to different vapour pressures of potassium in the furnace (from p to 3.5 p). It is clear from these figures that at $T = 1200^{\circ}\text{C}$ and above, the ion current becomes saturated and its magnitude is proportional to the number of K atoms at the surface of the ionizer. The maximum ion current of K^+ ions obtained with the ionizer was 120 mA and the maximum working substance utilization coefficient was 43.2%. The efficiency of the ion sources of the above type was found to be comparable with that of gas discharge sources.

There are 3 figures and 5 tables.

SUBMITTED: February 8, 1960

- Card 3/4

20676

S/120/61/000/001/007/062
E032/E114

X

A Surface-Ionization Ion Source for the Separation of Isotopes of
Alkali Elements

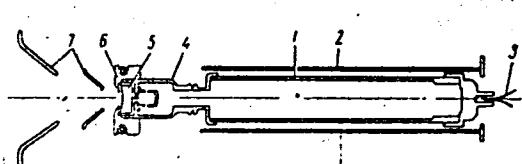


Fig. 1

Card 4/4

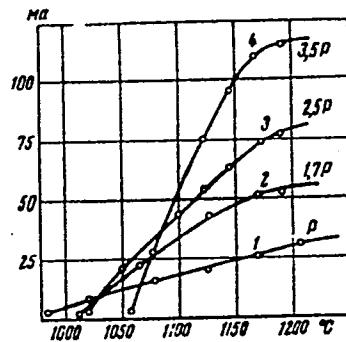


Fig. 3

RAYKO, V.I.; IOFFE, M.S.; ZOLOTAREV, V.S.

Ion source with surface ionization for separating isotopes of
alkali elements. Prib. i tekhn. eksp. 6 no.1:29-32 Ja-F '61.
(MIRA 14:9)

(Isotope separation) (Ion sources)
(Alkali metals--Isotopes)

ZVYAGINTSEV, A.F.; IVANOV, Yu.N.; KAZAKOV, V.E.; STETSENKO, A.M.;
SOLOMOVICH, M.Ya.; KORZH, V.I.; DASHKEVICH, A.A.; Prinimali
uchastiye: LIPTSEN, S.Kh.; RYZHIKOV, A.P.; STAL'NIKRTSKIY,
V.N.; LEVENETS, L.Ye.; MOGILA, V.A.; KOVAL', A.A.; VLASOV, V.F.;
ROSHCHIN, A.G.; RAYKO, V.P.; KORNIYENKO, V.G.; PANTYUSHKIN, N.V.

Investigating the possibility of manufacturing all-rolled
electric locomotive wheels with existing equipment. Kuz.-shtam.
proizv. 5 no.11:11-14 N '63.

(MIRA 17:1)

RAYKO, V.V., nauchnyy sotrudnik.; VOLKOV, Ya.R., nauchnyy sotrudnik.; NEVEDUYUSHCHIY, A.I., nauchnyy sotrudnik.; IPATOV, P.P., inzh., red.; SHULYATSKIY, D.I., inzh., red.; VORODIMOV, N.I., inzh., red.; ANDREYEV, S.P., tekhn. red.

[Instructions for the operation of the mechanical equipment of open-hearth shops] Pravila tekhnicheskoi eksploatatsii mekhanicheskogo oborudovaniia martenovskikh tsekhov. Khar'kov, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 112 p.
(MIRA 11:11)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skii institut organizatsii proizvodstva i truda chernoy metallurgii (for Rayko, Volkov, Neveduyushchiy). 2. Ministerstvo chernoy metallurgii (for Ipatov, Shulyatskiy). 3. Zavod "Zaporozhstal'" (for Vorodimov).
(Open-hearth process)

RAYKO, V.V.

RAYKO, V.V. nauchnyy sotrudnik; VOLKOV, Ya.R. nauchnyy sotrudnik; LEVITSKIY, D.A. nauchnyy sotrudnik; KHODAK, A.N. nauchnyy sotrudnik; RATNER, Yu.Z. inzhener; VORODIMOV, N.I. inzhener; GRISHAYEV, N.N. inzhener; SHULYATSKIY, D.I. inzhener, redaktor; ANDREYEV, S.A., tekhnicheskij redaktor

[Rules for the technical operation of cranes] Pravila tekhnicheskoi ekspluatatsii pod "emmykh kranov. Khar'kov, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 167 p.
(MLRA 10:5)

1. Russia (1923 U.S.S.R.) Ministerstvo chernoy metallurgii.
2. Vsesoiuznyy nauchno-issledovatel'skiy institut organizatsii chernoy metallurgii. (for Rayko, Volkov, Levitskiy, Khodak)
3. Otdel glavnogo mekhanika Ministerstva chernoy metallurgii. (for Shulyatskiy)
4. Zavod "Azovstal'" (for Ratner)
5. Zavod "Zaporozhstal'" (for Vorodimov, Grishayev)
(Cranes, derricks, etc.)

RAYKO, V.V., nauchnyy sotrudnik; NIKBERG, I.M., nauchnyy sotrudnik;
KHODAK, A.N., nauchnyy sotrudnik; NEVEDUSHCHIY, A.I., nauchnyy
sotrudnik; VOLKOV, Ya.R., nauchnyy sotrudnik; PEYCHEV, G.P., otv.
red.: IPATOV, P.P., red.; SHULYATSKIY, D.M., red.; BURKSER, L.D.,
red.; BALASEVICH, Yu.Yu., red.; SVETCHENKO, V.N., red.; KRYLOVSKIY,
A.P., red.; SINYAVSKAYA, Ye.K., red.izd-va; ANDREYEV, S.P., tekhn.red.

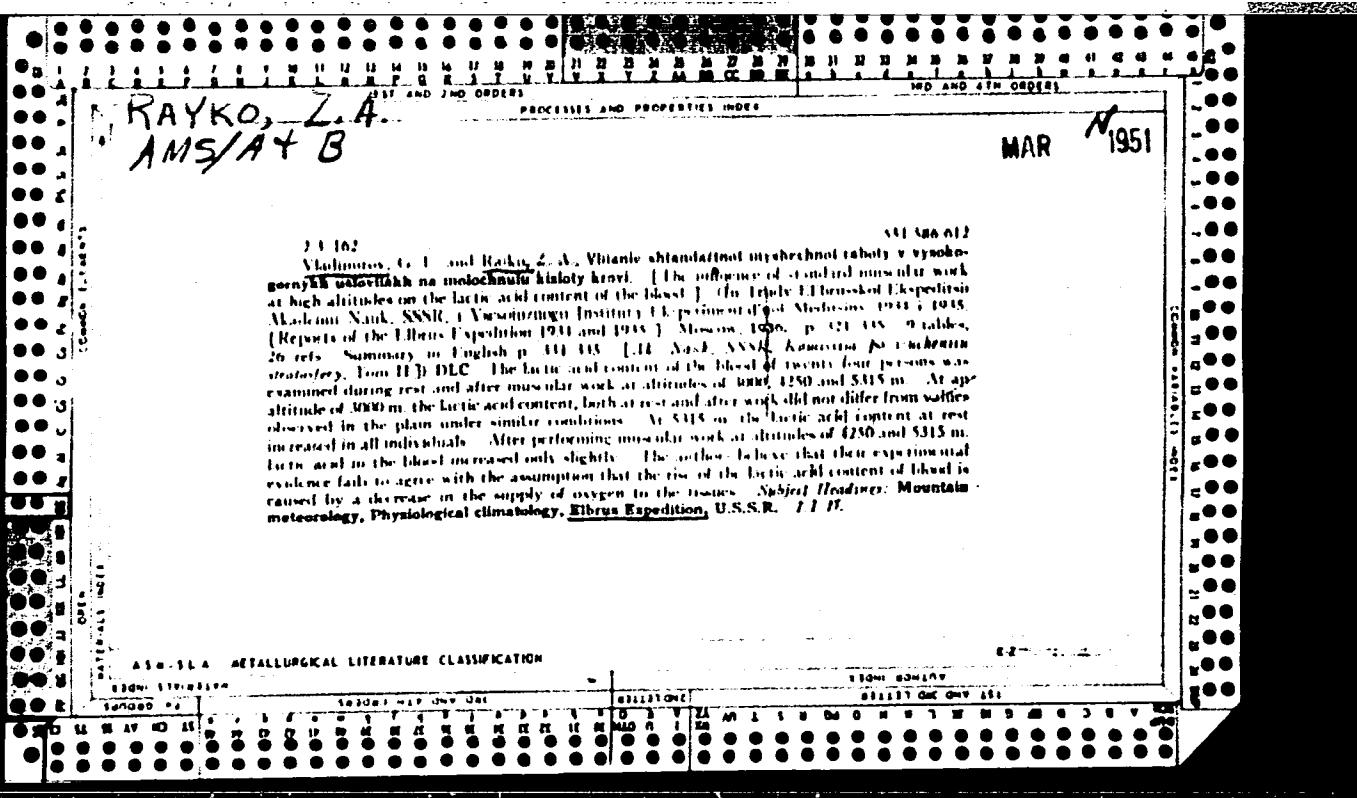
[Regulations for operating the mechanical equipment of rolling mills]
Pravila tekhnicheskoi ekspluatatsii mekhanicheskogo oborudovaniia
prokatnykh tsekhov. Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii, 1959. 247 p. (MIRA 12:9)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut organi-
zatsii proizvodstva i truda chernoy metallurgii. 2. Vsesoyuznyy
nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda
chernoy metallurgii (VNIIOChERMET) (for Rayko, Nikberg, Khodak, Neve-
dushchiy, Volkov). 3. Otdel glavnogo mekhanika byvshego Ministerstva
chernoy metallurgii SSSR (for Ipatov, Shulyatskiy). 4. Zavod imeni
Dzerzhinskogo (for Burkser, Balasevich). 5. Zavod imeni Kirova (for
Svetchenko). 6. Zavod imeni Voroshilova (for Krylovskiy).
(Rolling mills--Equipment and supplies)

NIKBERG, Il'ya Moiseyevich; RAYKO, Vladimir Vladimirovich [deceased];
ZYUZIN, Vladimir Ivanovich; GOLYATKINA, A.G., red. izd-va; ISLENT'YE-
VA, P.G., tekhn. red.

[Design and operation of rolling mills] Ustroistvo i ekspluatatsiia
prokatnykh stanov. Pod obshchei red. V.I.Ziuzina. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961.
267 p. (MIRA 14:12)

(Rolling mills)



RAYKO, Z.A., VLADIMIROV, G.YE, & DEDYULIN, IM.

Wpliv skhodzhennya na El'brus na riven' molochnoy kizloti krovi
(The effect of climbing El'brus on the lactic acid level in human blood)
Eksperimental'na Meditsina, 2, 35-41, 1937

All-Union Institute of Experimental Medicine imeni A.M. Gor'kiy (VIEM) (1933-1937)

RAYKO, Z.A., VLADIMIROV, G.YE, DEDYULIN, I.M., KUDRYAVTSEV, N.A., OPPEL', V.V.

Vpliv aklimatizatsiy do visokogirnogo klimatu na luzhno-kislotnu ravnovagu v krovi
lyudey
(The effect of acclimatization to high mountain climate on the alkali-acid balance in
human blood)
Eksperimental'na Meditsina, 2, 54-67, 1937

All-Union Institute of Experimental Medicine imeni A.M. Gor'kiy (VIEM), (1933-1937)

PA 3/49T80

RAYKO, V. A.

USER/Medicine - ~~Hemoglobin~~
Medicine - Ascorbic Acid

Mar/Apr 48

"The Formation of Colorless Iron From Hemoglobin
in the Presence of Ascorbic Acid," Z. A. Rayko,
Chair of Biol Chem, Mil Med Acad Instn S. M.
Kirov, 5½ PP

"Biokhimiya" Vol XIII, No 2

Reports experiments performed on blood of various
animals. Shows results in tables and graphs.
Colorless iron content of blood is 1-3% of total
iron. Incubation of hemolyzed blood at 38°
results in slight increase of colorless iron,
denoting slowness of hemoglobin decomposition, under
3/49T80

USER/Medicine - Hemoglobin (Contd)

Mar/Apr 48

these conditions. Acid pH shift also causes
slight increase of colorless iron formation. Addi-
tion of ascorbic acid produces considerable increase
in colorless iron, depending on amount added. Similar
effect of hydrogen peroxide and glutathione is not
so pronounced. Submitted 21 Aug 47.

3/49T80

RAYKO, Z. A.

725. Effect of amines on activity of some enzymes involved in carbohydrate metabolism. Z. A. Raiko *Farmakol. i Tokiol.* 1955, 18, 31-37; *Referat. Zn. Biol.*, 1956. Abstr. No. 73607.—The influence of trichloroethylamine [I] and of trimethylamine [II] on the activity of yeast hexokinase and hexokinase and pyruvate oxidase of brain tissue of mice, rats, and rabbits was investigated. Hexokinase of brain tissues was completely inactivated by I at the concn. of 9 μ mole per ml. of mixture. The activity of yeast hexokinase decreased proportionately with increasing concn. of added amine, but no inactivation occurred even at the concn. of 15 μ mole I per ml. Activity of pyruvate oxidase was maintained at 30-40% in the presence of an amount of I sufficient to inactivate completely hexokinase. II had no effect on the activity of hexokinase. Drop in enzyme activity by the action of I accompanies alterations in the structure of the proteins of the enzyme prep. By action of the amine, the amounts of amino N and of free carboxyl groups decrease. With yeast hexokinase the amount of SH-groups was increased. The level of amino N in proteins of brain hexokinase showed little change while the content of COOH and SH-groups was reduced. From the results it follows that I poisons yeast hexokinase and to a greater degree the hexokinase and pyruvate oxidase of brain tissues and that free COOH and SH-groups play an important rôle in the preservation of enzymic activities. (Russian)

W. NEISH

Chair Biolog.-Chem., ~~the~~ Military Med.-Acad in S.M. Kirov

ZAYKIN, Z. A., PEMROV, I. P., AKIMOV, G. A., and KURITSKAYA, T. Ye.

"The Application of Artificial Hypothermia for Preventing Harmful Consequences of Temporary Cessation of the Total Blood Circulation," from the book Theses of the Reports of the Scientific Session of the Military Medical Academy im. S. M. Kirov, Tezisy Dokladov Nauchnoy Sessii, 29 Oct-2 Nov 1956, Leningrad.

RAYKO, Z.A.

PETROV, I.R.; RAYKO, Z.A.; KUDRITSKAYA, T.Ye.

Comparative characteristics of functional changes in some
indexes of carbohydrate phosphorus metabolism in the brain
tissue in the agonal state, in clinical death, and in
resuscitated animals. [with summary in English]
Fiziol. zhur. 43 no.2:107-116 F '57

(MLRA 10:4)

1. Kafedra patologicheskoy fiziologii i Kafedra biologicheskoy
khimii Vojenno-meditsinskoy akademii im. S.M. Kirova, Leningrad.
(BRAIN, metab.
carbohydrate-phosphorus in agony, clin. death &
in resuscitated cats)
(CARBOHYDRATES, metab.
carbohydrate-phosphorus metab. in brain, eff. of
exper. agony, clin. death & resuscitation in cats)

USSR/Human and Animal Physiology - Nervous System.
Metabolism.

T-10

Abs Jour : Ref Zhur - Biol., No 13, 1958, 84534

Author : Rayko, Z.A., Petrov, I.R., Kudritskaya, T.Ye.

Inst : -

Title : Effects of Hypothermia and Ganglioblocking Substances upon the Carbohydrate-Phosphorus Metabolism in the Brain of Animals during Temporary Exclusion of the Heart from Blood Circulation.

Orig Pub : Vestn. Lekarstv., 1957, 78, No 5, 55-63, 158.

Abstract : After intravenous administration of a hexonic preparation, hypoxemia was induced in ether-oxygen anesthetized cats by excluding the heart from the circuit of the blood system. This was achieved by clamping off the jugular vein and the vena cava for 18-27 minutes. At the same time, hypothermia was produced by chilling the body to a temperature of 25-24°C with ice. ATP [adenosine triphosphate] and

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verso 2/2

RAYKO, Z.A.; PETROV, I.R.; KUDRITSKAYA, T.Ye.

Phosphorus compounds and lactic acid in brain and heart tissues of hypothermic animals during cardiac arrest and during restoration of systemic circulation by a series of therapeutic procedures. Fiziol. zhur. 45 no.12:1489-1496 D '59. (MIRA 13:4)

1. From the Department of Pathologic Physiology, S.M. Kirov Military Medical Academy, Leningrad.

(CARDIAC ARREST experimental)
(LACTATES chemistry)
(PHOSPHORUS chemistry)
(HYPOTHERMIA INDUCED experimental)
(HEART chemistry)
(BRAIN chemistry)

3(2)

PHASE I BOOK EXPLOITATION

BUL/1534

Raykov, Asen, Professor

Fotogrametriya, ch. I (Photogrammetry, pt. 1) Sofia, D'rzh.
izd-vo "Nauka i izkustvo," 1956. 344 p. 563 copies printed.

Ed.: Krum, Zhivkov.

PURPOSE: This book is intended to be used as a textbook on photogrammetry and as a reference for photogrammetric engineers.

COVERAGE: The contents of this text are devoted almost entirely to fundamental principles and formulas used in photogrammetry and photogrammetric instrument construction. In addition, a small portion of the book describes the development of photogrammetry in Russia and in Bulgaria. The book covers the basic principles of photogrammetric optics and lenses; aerial photography allied subjects such as photo chemicals, films, and processing methods; and the relationships in aerial photos.

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Photogrammetry, pt. 1 (Cont.)

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Chapters are included on the properties of perspective projection, coordinate systems in photos, and on the geometric relationships between planes. From the practical side, there are chapters devoted to the methods of rectification and rectifying machines, also to the actual preparation of photo mosaics. The final chapter treats various methods of radial triangulation very thoroughly. The Appendix includes 8 pages of illustrations of photogrammetric equipment. There are 25 references of which 14 are Soviet, 9 German, and 2 Bulgarian.

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RAYKOV, A.A., kand.med.nauk

Plastic restoration of a deformed nasal ala. Zhur. ush., nos.
i gorl. bol. 20 no.1:78-79 Ja-F '60. (MIRA 14:5)

1. Otorinolaringologicheskoye otdeleniye Khersonskoy bol'nitsy.
(NOSE—SURGERY)

BAYKOV, A.A., kand.med.zauk.

Use of our tonsil extirpator in removing tonsils. Vrach.delo no.6:
639-440 fo '58
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1. Laringologicheskoye otdeleniye Khabarovskoy oblastnoy bol'nitsy.
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Use of our tonsil extirpator in removing tonsils. Vrach.delo no.6:
639.4.6. No '58 (KMA 11:7)

2. Laringologicheskoye otdeleniye Khersonskoy oblastnoy bol'nitsy.
(SURGICAL INSTRUMENTS AND APPARATUS)

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Treatment and prevention of scleroma. Vest.oto-rin. 19 no.3:117
(MIRA 10:10)
My-Je '57.

1. Iz Khersonskoy oblastnoy bol'nitsy.
(RHINOSCLEROMA)

PAYKOV, A. A.

Respiratory Organs - Foreign Bodies

Respiratory foreign bodies and their extraction. Vest. oto-rin., 14, No2, 1952.

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37263. L. G. Tsenkovskiy-Inovateli' Mikro-siolo ii v Rossii. Mikro-siolo iya, 1949,
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(On one of the lesser known works of L. S. Tsenkovskiy,
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SO: U-2241, 1; December 1953, (Leto Is. Zhurnal 'Byki Stal'ej', No. 26, 1-19)

RAYKOV, B. Ye. (Prof.); PAVLOVSKIY, Ye. N. (Anal.)

History of the Evolution of Animals, Vol 1, Moscow-Leningrad; 1950, 466 pp.

Book W-22202, 7 Apr 52

RAYKOV, B. Ye.

Science

Russian biologists-evolutionists before Darwin, Moskva, Izd-vo Akademii nauk SSSR., Vol. 2, Materialy k istorii evoliutsionno, idei v Rossii, 1951

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